

WHAT IS CLAIMED IS:

1. A display apparatus for making a plurality of light beams of mutually different colors incident to at least one display element and modulating the beams of the respective colors by the at least one display element to form images of the respective colors, wherein purity of at least one color out of said colors is variable and wherein a control pattern of the image display element is modified according to variation in the purity of the at least one color.

2. The display apparatus according to Claim 1, wherein when said purity is relatively low, an image of said at least one color is formed by using the light beam of said at least one color and the light beam of the color different from said at least one color.

3. The display apparatus according to Claim 2, wherein said at least one color is red or green.

4. The display apparatus according to Claim 2, wherein said at least one color is red or green and said color different of said at least one color is blue.

5. The display apparatus according to Claim 1, wherein the purity of said at least one color is

varied by moving a band cut filter or an edge filter into or out of an optical path of said at least one color.

5 6. The display apparatus according to Claim 5,
comprising detection means for detecting a position of
said filter, wherein said control pattern is modified,
based on a signal from the detection means.

10 7. The display apparatus according to Claim 5,
wherein when said filter is off the optical path, an
image of said at least one color is formed by using the
light beam of said at least one color and the light
beam of the color different from said at least one
15 color.

20 8. The display apparatus according to Claim 7,
wherein said at least one color is red or green and
said color different of said at least one color is
blue.

25 9. The display apparatus according to Claim 1,
wherein said control pattern is modified so that a
color reproduction range in the case of the purity of
said color being relatively low becomes narrower than a
color reproduction range in the case of the purity of
said color being relatively high.

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10. A color image display apparatus wherein
purity of at least one color out of light of the three
primary colors is variable and wherein when purity of
said color is low, an image display element is
5 controlled in a color reproduction range narrower than
a color reproduction range used when the purity is
high.

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11. The display apparatus according to any of
Claims 1 to 10, further comprising a projection optical
system for projecting and superimposing said images of
respective colors formed by said at least one display
element onto a plane.

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